

Patent Claims

1. Dielectrically impeded discharge lamp having
- a discharge vessel with two at least partially parallel vessel walls (2; 7),
  - at least one spacer (1; 13) made from optically transparent insulating material, the or each spacer (1; 13) being arranged inside the discharge vessel between the two vessel walls (2; 7) in such a way that the or each spacer (1; 13) is in contact with the two vessel walls (2; 7) via bearing surfaces, and
  - electrodes (3; 4), at least one electrode being separated from the interior of the discharge vessel by a dielectric, characterized in that,
  - the or each spacer (1; 13) has an optically diffuse surface (8; 15) at least in the region of one bearing surface.
2. Discharge lamp according to Claim 1, in which the diffuse surface (8) is implemented by frosting.
3. Discharge lamp according to Claim 1, in which the diffuse surface is implemented by a thin frosted-white coloured layer (15).

a *prot B1*  
30 4. Discharge lamp according to ~~one of Claims 1 to 3~~, in which the or each spacer (13) is formed by a column.

5. Discharge lamp according to Claim 4, in which the cross section of the column is cruciform or star-shaped.

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6. Discharge lamp according to ~~one of Claims 1 to 3~~, in which the or each spacer (1) is formed by a body which has a thickened portion between the bearing surfaces.

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*2*  
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15. Discharge lamp according to ~~one of the preceding~~ *claim 1* *B* claims, in which the insulating material of the or each spacer (1; 13) is glass.

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5 16. Discharge lamp according to ~~one of the preceding~~ *claim 1* *B* claims, in which the lamp is a flat lamp, and the two vessel walls are a front plate (7) and a baseplate (2) parallel thereto.

10 17. Spacer (1; 13) made from optically transparent insulating material for use in a dielectrically impeded discharge lamp having a discharge vessel with two at least partially parallel walls (2; 7), the spacer (1; 13) being provided for the purpose of being arranged inside the discharge vessel of the discharge lamp between the two vessel walls (2; 7) in such a way that the spacer (1; 13) is in contact via bearing surfaces with the two vessel walls (2; 7), characterised in that the spacer (1; 13) has an optically diffuse surface (8; 15) at least in the region of one bearing surface.

15 18. Spacer (1) according to Claim 17, in which the diffuse surface (8) is implemented by frosting.

20 19. Spacer (13) according to Claim 17, in which the diffuse surface is implemented by a thin frosted-white coloured layer (15).

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25 20. Spacer according to ~~one of Claims 17, 18 or 19~~ *B*, in which at least a portion of the surface of the spacer has properties of a "radiation trap".

30 21. Spacer according to Claim 20, in which the surface has microstructures, for example in the form of prisms or pyramids. *C*

35 22. Spacer according to Claim 20, in which the surface has an anti-reflection interference layer.

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23. Spacer (1) according to ~~one~~ of Claims 17 to 22, in which at least a portion of the surface of the spacer additionally has a fluorescent layer (10).

*add*  
*C.1*

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